

AMENDMENT TO THE CLAIMS

1-21. (Canceled)

22. (Currently Amended) A method comprising:

receiving a photoelectrically induced signal in an array of photoreceptors on a semiconductor substrate;

controlling each photoreceptor in the array of photoreceptors to simultaneously ~~in~~ the initiate a common integration period;

at the end of each integration period, controlling each photoreceptor in the array of photoreceptors to transfer its photoelectrically induced signal to a respective separated storage node; and

preventing said separated storage node from integrating charge ~~during a time other than during said integration period.~~

23. (Currently Amended) A method as in claim 22, wherein said preventing comprises forming said separated storage node ~~in a separate~~ is separated from said photoreceptor by a semiconductor well within the semiconductor substrate.

24. (Currently Amended) A method as in claim 23, wherein said preventing further comprises forming shielding said separated storage node with a light shield overlying at least said separated storage node.

25. (Currently Amended) A method as in claim 23, wherein said preventing further comprises forming shielding said separate semiconductor well with a light shield overlying said semiconductor well.

26. (Canceled)

27. (Original) A method as in claim 25, further comprising enabling a first reset operation which resets a value of said storage node, and enabling a second reset operation, which resets a value of said photoreceptor.

28. (Currently Amended) A method as in claim 27, wherein said first and second reset operations each comprises activating a gate within said separate semiconductor well.

29. (Currently Amended) A method as in claim 28, wherein said photoelectrically induced signal is a signal indicative of charge produced by said photoreceptor during said integration period.

30. (Original) A method as in claim 28, wherein said photoreceptor includes a photodiode.

31. (Original) A method as in claim 28, wherein said photoreceptor includes a photogate.

32. (Currently Amended) A method as in claim 25, further comprising preventing said photoreceptor from acquiring a photoelectrically induced signal which is greater than a specified pre-determined amount.

33. (Original) A method as in claim 25, further comprising forming a second separated semiconductor well for each of the plurality of photoreceptors in the array.

34-52. (Canceled)

53. (New) A method comprising:

forming a photosensor in a substrate, the photosensor for forming charges in response to applied light;

forming a first well region in the substrate, the first well region being separated from the photosensor and being doped to a first conductivity type;

forming a storage region located in the first well region, the storage region for collecting charge generated by the photosensor and being doped to a second conductivity type; and

shielding at least a portion of the storage region by forming a shielding layer over the storage region.

54. (New) The method of claim 53, wherein the storage region comprises a p-type region and the first well region comprises an n-well.

55. (New) The method of claim 53, further comprising the act of forming a second well region surrounding said photosensor.

56. (New) The method of claim 55, wherein said first and said second well regions are n-well regions.

57. (New) The method of claim 53, wherein the act of shielding at least a portion of the storage region comprises forming a metal light shield layer over the first well region.

58. (New) The method of claim 53, wherein the act of forming a photosensor comprises one of forming a photodiode and forming a photogate.